

Complex Rational Expressions

Now let's have some fun!

Simplify each complex fraction and remember your good friend *Order of Operations*! A fraction bar acts as both a grouping symbol and division.

$$1.) \frac{\frac{\frac{3}{2} - \frac{2}{3}}{\frac{5}{2} - \frac{3}{5}}}{\frac{2}{3} - \frac{5}{6}}$$

$$2.) \frac{\frac{\frac{2}{3} - x}{\frac{3}{2}}}{\frac{2}{3} + x}$$

$$3.) \frac{\frac{\frac{1}{y-2}}{1 - \frac{1}{y-2}}}{1 - \frac{1}{y-2}}$$

$$4.) \frac{\frac{\frac{5}{x-3} - \frac{2}{x}}{\frac{2}{x-3} + \frac{1}{x}}}{\frac{2}{x-3} + \frac{1}{x}}$$

$$5.) \frac{4 - 7y^{-1}}{3 - 2y^{-1}}$$

$$6.) \frac{\frac{2}{y^2 - 4} + \frac{2}{y^2 + y - 2}}{\frac{6}{y^2 - 1} - \frac{3}{y^2 - y - 2}}$$

$$7.) \frac{1 + \frac{1}{1 + \frac{1}{1 + x}}}{1 + \frac{1}{1 + x}}$$